## **Claims**

- [c1] 1.A method for transmitting a MAC service data unit (MSDU) in a network system, the MSDU having a plurality of pieces of frame data, the method comprising: receiving the pieces of frame data of the MSDU; and when finishing receiving each piece of frame data, even if not all of the pieces of frame data of the MSDU have been received, converting the received piece of frame data into a MAC protocol data unit (MPDU) and outputting the MPDU.
- [c2] 2.The method of claim 1 wherein the network system is a wireless network system.
- [c3] 3.The method of claim 2 wherein the received piece of frame data is converted into the MPDU according to the IEEE 802.11 standard.
- [c4] 4.A network device comprising: an I/O interface for receiving a MAC service data unit (MSDU) which has a plurality of pieces of frame data; a buffer for storing the pieces of frame data received by the I/O interface; and a control circuit for controlling operations of the network

device and for converting the pieces of frame data stored in the buffer into MAC protocol data units (MPDUs); wherein each time when the I/O interface finishes receiving each piece of frame data, even if the I/O interface has not received all of the pieces of frame data of the MSDU, the control circuit converts the received piece of frame data into a corresponding MPDU and outputs the corresponding MPDU.

- [c5] 5.The network device of claim 4 further comprising an antenna for wirelessly transmitting the MPDUs.
- [c6] 6.The network device of claim 5 wherein the control circuit converts the pieces of frame data of the MSDU into the MPDUs according to the IEEE 802.11 standard.